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Is Routine Use of a Face Mask Necessary in the Operating Room?

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WHEN introduced a century ago, the purpose of the surgical facemask was to provide protection for the patient from surgical wound infections. But is there evidence that face masks prevent wound infections? A recent review concluded that it is not clear whether face masks prevent surgical wound infections,¹ and the scientific evidence for this practice is weak and insufficient.^{1,2} Questioning the efficacy of surgical face masks, an established routine in operating rooms worldwide, is clearly controversial given the tradition of the practice. Recognizing the lack of sound scientific evidence, we have changed facemask routines in several units at the Karolinska University Hospital (see image by Henrik Jörnvall, M.D., Ph.D., Department of

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Anesthesia personnel are no longer required to wear disposable face masks in the operating room, a practice approved by our surgical colleagues. Surgeons, their assistants, and scrub nurses are still required to wear masks.

Face masks are worn by all operating room personnel when treating patients susceptible to infections as in neurosurgery, vascular, and orthopedic procedures involving implants and regional anesthesia procedures (*e.g.*, spinal or epidural). Face masks are also used to protect staff from contamination. All personnel wear face masks when taking care of trauma patients or patients with blood-borne infections.

Our decision to no longer require routine surgical masks for personnel not scrubbed for surgery is a departure from common practice. But the evidence to support this practice does not exist, and studies to establish differences in infection rates with or without face masks will likely be difficult to design and implement given the small potential effect.

References

1. Lipp A, Edwards P: Disposable surgical face masks for preventing surgical wound infection in clean surgery. *Cochrane Database of Syst Rev* 2002; (1):CD002929
2. Tunevall TG: Postoperative wound infections and surgical face masks: A controlled study. *World J Surg* 1991; 15:387-8